FACT SHEET FOR
STATE WASTE DISCHARGE
PERMIT NO. ST-9187

TREE TOP, INC.

Cashmere Processing Plant
200 Titchenal Way
Cashmere, WA 98815

Tree Top, Inc., is seeking reissuance of its State Waste Discharge Permit for its Cashmere, Washington processing plant. The facility processes raw apples and pears into fresh and frozen juice concentrates. The facility has operated for nearly 30 years.

Process wastewater is primarily generated from the continuous cleaning usually required of food processing facilities. Wastewater undergoes preliminary treatment before being discharged to the City's industrial pretreatment facility, a 5.6 million gallon bulk volume fermenter (BVF), located on Tree Top's property adjacent to the processing plant. The BVF is essentially a large anaerobic digester which pretreats the processing plant's high-strength wastewater before discharge to the City's main secondary treatment plant.

Constructed in 1988, the BVF provided reliable pretreatment of Tree Top's process wastewater throughout its first 10 years. However, in 1998 the BVF's treatment processes began to fail, and subsequent investigation revealed liner failure as the cause. A summary of information describing the BVF's failure is contained in the **Treatment Processes** section of this fact sheet (see page 7); a more detailed description of the BVF, its failure, and repair is contained in the fact sheet associated with City's NPDES Permit.

The BVF's design criteria were reevaluated in the March 2000 engineering report. The facility's BOD and TSS loading criteria remain unchanged; consequently, Tree Top's effluent limits in this permit remain unchanged from those in the previous permit.

TABLE OF CONTENTS

GENERAL INFORMATION	
Applicant:	Tree Top, Inc. 220 E. Second Street P.O. Box 248 Selah, WA 98942-0248
Facility Name and Address:	Tree Top, Inc. 200 Titchenal Way Cashmere, WA 98815
Type of Facility:	Processing of fresh apples and pears into juice concentrates.
SIC Code:	2037 (Fresh and Frozen Fruit Juice Concentrates)
Discharge Location:	City of Cashmere POTW Latitude: 47° 31' 03" N Longitude: 120° 27' 05" W.
Contact Person:	Mr. Joe Brooks, Plant Manager Telephone: (509) 782-2312 Fax: (509) 782-1896

INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-9187. The Washington State Department of Ecology (Department) is proposing to reissue this permit, which will allow discharge of wastewater to City of Cashmere's Publicly-Owned Treatment Works (POTW). This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State (State) law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the State is allowed. This statute includes commercial or industrial discharges to POTWs operated by municipalities or public entities which discharge into public waters of the State. Regulations adopted by the State include procedures for reissuing permits and establish requirements which are to be included in the proposed permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A -- Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The responsiveness summary to comments will become part of the file on the proposed permit and parties submitting comments will receive a copy of the Department's responsiveness summary. This fact sheet will not be revised. Changes to the proposed permit will be addressed in Appendix C -- Response to Comments.

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

Tree Top's Cashmere processing plant is located in the eastern portion of the City, between the Wenatchee River and State Route 2. The City's pretreatment facility (BVF) is adjacent and to the south of the processing plant, on Tree Top's property. After pretreatment, the Permittee's discharge is piped underneath the river to the City's main secondary treatment plant, where it receives further treatment, and is then discharged to the river.

Tree Top, Inc. processes approximately 800 tons per day of raw apples and pears into 25,000 gallons of fresh and frozen juice concentrates. The facility operates 24 hours per day, 7 days per week, 220 to 250 days per year, with a 6 to 8-week summer shutdown.

History

Through the 1960's and up to the early 1970's, Tree Top, Inc. discharged all of its process wastewaters directly into the Wenatchee River.

In 1972, Tree Top, Inc. entered into an agreement with the City of Cashmere (City) to participate in funding improvements to the City's POTW so that its process wastewater could be sent to the POTW for treatment. In 1973, the following improvements were completed: (1) construction of a second lift station exclusively for the use of Tree Top, Inc.; (2) construction of a steel force main to convey Tree Top, Inc. discharges under the Wenatchee River to the City's POTW; (3) addition of three 25-HP surface aerators to Cell #1 which comprises 9.7 acres and contains 10.6 million gallons; (4) removal of a dike between lagoon Cells # 2 and #3, to form a single enlarged lagoon #4; (5) improvement of lagoon Cell #4, (6) enlargement of the size of the chlorine contact tank; (7) addition of a laboratory building; and (8) installation of a new outfall and diffuser into the Wenatchee River.

During the fall of 1980, as Tree Top, Inc. increased production, the City's POTW experienced problems with odors and sludge accumulation. In an attempt to resolve the problem the lagoons were dredged, paid for by Tree Top, Inc., which also funded other wastewater treatment improvements including the addition of nine new aerators to lagoon Cells #1 & #2.

In 1982, Tree Top, Inc. paid for 5 additional 25-HP aerators in Cells #1 & #2. In 1985, the company paid for 4 aerators for Cell #3 and for the construction of a floating baffle in the same cell to create a quiescent zone near the outlet to the river. In 1988, the company replaced its stormwater outfall as well as the City's effluent outfall.

Between 1989 and 1994, there were various additional improvements to the City's POTW including: (1) the construction of a bulk volume fermenter (BVF) with gravity flow to the City's lagoons; (2) installation of a waste gas burner; (3) installation of a high density polyethylene (HDPE) discharge line under the river to the lagoons; and (4) changing lift station #2 from pumping industrial wastes to pumping domestic wastes.

Industrial Processes

The raw fruit received at Tree Top, Inc. is first washed to remove leaves, stems and other debris prior to being chopped into pieces. The chopped pieces are then "finished", a process in which the skins and seeds are removed. Skins and seeds are then combined with the screenings and sent off-site as cattle feed. The remaining fruit pieces are mixed with enzymes to break down the cell walls, and then pressed to remove the juice from the cells. A centrifuge is then used to separate out the solids (pomace), which is also sent out as cattle feed. The remaining juice has powdered activated carbon added to it to remove impurities, and is then filtered by either membrane or DE filtration (depending on product types). The filtered juice is then evaporated, producing a juice concentrate that is either stored in bulk or packaged into small containers as frozen product. Generation of wash wastewater is frequent throughout the Tree Top, Inc. facility, and at times includes strongly-acidic and basic (sodium hydroxide) solutions that are used to clean tanks, piping and equipment in clean-in-place (CIP) systems. The facility also uses sodium hypochlorite solutions to sanitize the same equipment between processing runs, and as a result the process wastewater can contain relatively high chlorine residuals.

Other residual solids such as diatomaceous earth (DE), spent activated carbon, screenings, and general solid waste (paper, etc.) are transported to a landfill in Douglas County.

Treatment Processes

All of Tree Top's process wastewaters undergo a screening process prior to discharge to the City's BVF. Also, wastewaters from specific areas of the plant are clarified to remove diatomaceous earth (DE). Wastewaters can be diverted into an emergency holding tank, if necessary, to avoid discharging slug loads to the BVF. The pH of such diverted flows can be modified while in the emergency holding tank.

The Permittee's facility is the sole discharger to the BVF. The BVF was designed and constructed to pretreat Tree Top's wastewater specifically, before receiving further treatment at the City's main treatment plant. In late-1998, disruption of the BVF's treatment processes occurred, eventually resulting in disruption in operations at the City's main treatment plant and

exceedances of its NPDES effluent limitations. Further investigation revealed the BVF's liner had failed, resulting in generation of methane gas beneath the liner and leakage of approximately 1 gallon per minute of partially-treated wastewater to ground water. At this time (June 2000) repairs to the BVF facility are nearly completed. A more detailed description of the upset of the BVF and its resolution may be found in the fact sheet associated with the City's NPDES Permit, WA-002318-3.

Process Wastewater Outfall

Tree Top, Inc.'s process wastewater discharges to the City's BVF pretreatment unit through a 12-inch diameter pipe. The pipe was installed at the same time the BVF pretreatment unit was constructed. The discharge location is: Latitude: 47° 30' 58" N, Longitude: 120° 27' 07" W.

Solid Waste Management

Pomace generated by the extraction of juice from apples and pears is combined with screenings from Tree Top's Wenatchee plant for use in animal feed. Diatomaceous earth, screenings, and general solid waste (paper, etc.) from the Cashmere plant are disposed of at the Douglas County landfill.

Stormwater Outfall

Tree Top, Inc.'s original stormwater outfall was reconstructed in 1988. The reconstructed outfall's diffuser is 36.3 feet long, with a total of 25 orifices in a single row placed at 1.5 feet on centers. The outfall location is: Latitude: 47° 31' 03" N, Longitude: 120° 27' 22" W.

PERMIT STATUS

The previous permit for this facility was issued on June 28, 1995.

An application for permit renewal was received by the Department on July 28, 1999 and accepted on July 29, 1999.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on October 1, 1998, which found the facility to be in compliance with its permit. During that inspection, the Departmental inspectors told Tree Top, Inc. that no Water Reduction Plan (Condition S9. of previous permit) needed to be completed as the facility had completed an alternate program.

During the history of the previous permit, Tree Top, Inc. has remained in compliance with its permit requirements based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department.

WASTEWATER CHARACTERIZATION

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports. The effluent discharged by Tree Top, Inc. during the 12-month period from May 1998 through April 1999 is characterized for the following parameters:

Parameter	Units	Average Monthly Value	Max./Min. Average Monthly Value
Alkalinity	mg/L as $CaCO_3$	142	345 max.
BOD_5	mg/L	2,531	3,899 max.
BOD_5	lbs/day	6,481	11,408 max.
COD	mg/L	5,685	7,148 max.
COD	lbs/day	13,834	19,119 max.
DO	mg/L	3.0	1.0 min.
Flow	MGD	0.270	0.332 max.
pH	Standard Units	4.6	4.0 min.
Phosphorus, Total	mg/L	6.6	10.6 max.
Temperature	ºC	17.6	23.0 max.
TKN	mg/L	10.1	25.0 max.
TSS	mg/L	1,155	1,676 max.
TSS	lbs/day	2,918	4,810 max.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a State Waste Discharge Permit must be based on the effects of the pollutants to the receiving POTW (local limits), or on the technology available to treat the pollutants (technology-based). In all cases, however, the process wastewater must be treated using "all known, available, and reasonable methods of prevention, treatment and control" (AKART) and not interfere with the operation of the receiving POTW. The more stringent of the local limits-based or technology-based limits must be typically applied to each of the parameters of concern.

EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS

The City has not established local limits and, therefore, the Department has determined that pollutant concentrations in the proposed discharge with only the technology-based controls, below, in place will not cause problems at the receiving POTW such as interference, pass-through or hazardous exposure to POTW workers, nor will it result in unacceptable pollutant levels in the POTW's sludge. If any more-stringent local limits are determined by the City to be

necessary in the future, such limits will take precedence over the respective less-stringent limits contained in the proposed permits.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring AKART of discharges to waters of the State (WAC 173-216-110). Existing federal categorical limitations for the Tree Top, Inc. facility are found under 40 CFR Part 407: *Canned and Preserved Fruits and Vegetables Point Source Category*. However, the applicable pretreatment standards for existing sources do not specify effluent limitations for pH, BOD or TSS.

The Department has determined that the minimum requirements to demonstrate compliance with AKART would then be, at a minimum, the specific design criteria for the City's BVF pretreatment unit. The original BVF design criteria were established in the December 14, *1988 Engineering Report for Wastewater Facilities Improvements* prepared by ADI International, Inc. and Tree Top, Inc. However, the flow design criterion was later revised (increased) by ADI International, Inc. in a February 16, 1989 letter to the Department.

The original design criteria of the City's BVF pretreatment unit, utilized for determining the effluent limits in Tree Top, Inc.'s previous permit, are as follows:

Parameter	Units	Monthly Average for Maximum Month	Daily Maximum
BOD_5	lbs/day	24,500	N/A
Flow	MGD	0.370	0.533
TSS	lbs/day	9,500	N/A

However, in the final ER approved by the Department, the design criteria for flow were revised, and are as follows:

Parameter	Units	Monthly Average for Maximum Month	Daily Maximum
Flow	MGD	0.440	0.533

COMPARISON OF EXISTING LIMITATIONS WITH THOSE PROPOSED

		Existing Limits		Proposed Limits	
Parameter	**Units**	**Average Monthly**	**Maximum Daily**	**Average Monthly**	**Maximum Daily**
BOD_5	lbs/day	24,500	N/A	24,500	N/A
Flow	MGD	0.370	0.533	0.440	0.533
TSS	lbs/day	9,500	N/A	9,500	N/A

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110). The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring. The proposed permit will require additional monitoring for chlorine which was not in the previous permit.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The requirements of Special Condition S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110 and 40 CFR 403.12 (e),(g), and (h)).

OPERATIONS AND MAINTENANCE

This permit contains Special Condition S5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the City's POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the City's POTW or harm to the POTW workers (Chapter 173-216 WAC), and the discharge of designated dangerous wastes not authorized by the proposed permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

Tree Top, Inc. is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with the effluent limitations of the proposed permit.

SOLID WASTE PLAN

The Department has determined that Tree Top, Inc. has a potential to cause pollution of the waters of the State from leachate of solid waste.

The proposed permit requires, under the authority of RCW 90.48.080, that Tree Top, Inc. submission of an updated Solid Waste Plan designed to prevent solid waste from causing pollution of the waters of the State.

NON-ROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, the Tree Top, Inc. facility may generate wastewater which is not characterized in its permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters, but may be contaminated with pollutants. The proposed permit contains an authorization for non-routine and unanticipated discharges, which requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, the Department may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

SPILL AND SLUG DISCHARGE PREVENTION AND CONTROL PLAN

Tree Top, Inc. has developed a Spill Control Plan for preventing the accidental release of pollutants to State waters and for minimizing damages if such a spill occurs. The proposed permit requires Tree Top, Inc. to update the plan and submit it to the Department.

The Department has determined that Tree Top, Inc. has the potential for a batch discharge or a spill that could adversely effect the City's POTW; therefore, a Slug Discharge Control Plan is required (40 CFR 403.8 (f)) by the proposed permit.

Many aspects of the separate spill and slug plans are duplicative; therefore, the Permittee is required to submit a combined Spill and Slug Discharge Prevention and Control Plan. Requirements of the plan are detailed in Condition S8.

GENERAL CONDITIONS

General Conditions are based directly on State laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with their pretreatment requirements, including effluent limits, during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, Tree Top, Inc. is hereby apprised that noncompliance with the proposed permit may result in publication of such noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

The proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the proposed permit be issued for 5 years.

APPENDIX A -- PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The proposed permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on July 30, 1999 and August 6, 1999 in the Wenatchee World to inform the public that an application had been submitted and to invite comment on the reissuance of the proposed permit.

The Department published a Public Notice of Draft (PNOD) on December 1, 2000 in the Cashmere Valley Record to inform the public that a draft permit and fact sheet were available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Data Systems Manager
Washington State Department of Ecology
Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, WA 98902

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in the proposed permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of the proposed permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the proposed permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in the proposed permit.
Further information may be obtained from the Department by telephone, 509/575-2490, or by writing to the address listed above.

This fact sheet and the proposed permit were written by Jim LaSpina.

APPENDIX B -- GLOSSARY

Ammonia — Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.
Average Monthly Discharge Limitation — The highest allowable average daily discharge of a pollutant calculated over a calendar month's time.
Best Management Practices (BMPs) — Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.
BOD_5 — Determining the five-day Biochemical Oxygen Demand (BOD_5) of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria through the decomposition of organics. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.
Bypass — The intentional diversion of waste streams from any portion of the collection or treatment facility.
Categorical Pretreatment Standards — National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.
Compliance Inspection - Without Sampling — A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.
Compliance Inspection - With Sampling — A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.
Composite Sample — A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.
Construction Activity — Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.
Continuous Monitoring — Uninterrupted, unless otherwise noted in the permit.

Engineering Report — A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Grab Sample — A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User — A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater — Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference — A discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (1) inhibits or disrupts the receiving POTW, its treatment processes or operations, or its sludge processes, use or disposal; and (2) is a cause of a violation of any regulatory requirement of the receiving POTW.

The regulatory requirements include: (1) the POTW's NPDES permit (including an increase in the magnitude or duration of a violation); and (2) the use or disposal of sewage sludge in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits — Specific prohibitions or limits on pollutants or pollutant parameters developed by the receiving POTW.

Maximum Daily Discharge Limitation — The highest allowable daily discharge of a pollutant calculated during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL) — The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Pass-through — A discharge which exits the receiving POTW into waters of the-State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the receiving POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

pH — The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Potential Significant Industrial User — A Potential Significant Industrial User (PSIU) is defined as an industrial user which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

1. Exceeds 0.5% of the POTW's design capacity criteria and discharges <25,000 gpd; or
2. Is a member of a group of similar industrial users which, when taken together, have the potential to cause pass-through or interference at the receiving POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a PSIU should be managed as a Significant Industrial User.

Quantitation Level (QL) — A calculated value five times the MDL (method detection level).

Significant Industrial User (SIU) — A Significant Industrial User (SIU) is defined as an industrial user which discharges wastewater meeting one or more of the following criteria:

1. Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
2. (a) discharges an average of 25,000 gpd or more of process wastewater to the receiving POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); (b) contributes a process wastestream that makes up 5% or more of the average dry weather hydraulic or organic capacity of the receiving POTW; or (c) is designated as an SIU by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the receiving POTW's operation or for violating any applicable pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that an industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the receiving POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or the receiving POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a SIU.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the receiving POTW in the case of delegated POTWs.

Slug Discharge — Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the receiving POTW. This may include any pollutant released at a flow rate which may cause interference with the receiving POTW.

State Waters — Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington.

Stormwater — That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit — A limit on the concentration of an effluent parameter that is based on the ability of a specific treatment method to reduce the pollutant.

Total Coliform Bacteria — A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids — Total dissolved solids (TDS) is that portion of total solids in water or wastewater that passes through a specific filter.

Total Suspended Solids — Total suspended solids (TSS) is that portion of total solids in water or wastewater that cannot pass through a specific filter. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, TSS may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, TSS can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit — A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C -- RESPONSE TO COMMENTS

No comments were received by the Department of Ecology.